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For: Programmable Controller for Controlling an Output State

**ABSTRACT**

A programmable controller for controlling one or more outputs based on position

- 5 indicated from a position transducer. The controller includes an interface that converts the transducer signals into a change in position, a transducer position counter that accumulates the change in transducer position, and a net forward position counter that accumulates the net forward position. The position counter updates when the transducer signals indicate a change of position. The net forward position counter updates when the value of the net forward position  
10 counter and the value of the transducer position counter are equal and the transducer interface indicates a forward movement. Each controller output has an independent comparator and width counter. The comparator examines the net forward position to determine when to change the output or begin a pulse. The width counter counts down to zero, which ends a pulse.

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